



POSITION DUTY STATEMENT

NAME	MCR I
CLASSIFICATION Research Data Specialist II	POSITION NUMBER 538-102-5758-001
WORKING TITLE GIS and Publication Specialist II	DIVISION/UNIT California Geological Survey / Regional Geologic and Landslide Mapping Program
EFFECTIVE DATE	LOCATION Sacramento
BARGAINING UNIT R01	CONFLICT OF INTEREST CATEGORY N/A

DEPARTMENT STATEMENT: All employees are responsible for contributing to an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination. You are expected to work cooperatively with team members and others to enable the Department to provide the highest level of service possible. Your efforts to maintain regular attendance and treat others fairly, honestly, and with respect are critical to the success of the Department's mission and vision.

GENERAL STATEMENT: Under the general direction of the Research Data Supervisor II in the Regional Geologic and Landslides Mapping Program, the Research Data Specialist II will conduct independent research and perform complex GIS tasks in support of program specific research, emergency response, and hazard management. The Research Data Specialist II will have advanced knowledge and skills related to geospatial data analysis and statistics, data management, information design and visualization, and project management. Duties include, but are not limited to:

A. **SPECIFIC ACTIVITIES: ESSENTIAL / MARGINAL FUNCTIONS**

- **ESSENTIAL FUNCTIONS**

- **35% GIS and Data Analysis**

Conducts research and analysis in support of Department and Division goals and mandates related to geologic hazards, investigations, and resource management. Uses ESRI software suite, open-source GIS software, remote sensing software, and relational database systems (SQL Server and PostgreSQL) to independently perform complex data compilation, data curation and management, advanced spatial data analysis, geoprocessing, cartographic design, and development of map publications, reports, web maps and applications for the creation and dissemination of geologic information. Designs, deploys, and maintains spatial databases, models and/or scripts (python, JavaScript), and methodologies for use in creation of geologic hazards and resources data, complex data processing, and process improvement/automation. Uses remote sensing software to visualize and process remotely sensed data for various evaluations such as differenced Normalized Burn Ratio

(dNBR), Leaf Area Index (LAI) and Normalized Difference Vegetation Index (NDVI) among others.

- **35% Product Development**
Serves as a GIS and publication technical lead performing and coordinating the production of reports, figures, and maps using GIS software, Adobe Creative Suite, databases, and information design and visualization skills. Assists multidisciplinary project teams to understand, interpret, visualize, and develop accessible geologic hazard and resource reports and maps using geospatial data; particularly supporting deployment of ESRI Field applications for the collection of geologic information and post-event reconnaissance. Makes recommendations to project teams regarding methods and software suitable to meet assignment goals. Is the technical lead performing GIS data Quality Assurance/Quality Control (QA/QC) procedures, data synthesis, and representation for publication quality figures, reports, and web-based applications. Writes clear and concise reports and process documentation for internal and external stakeholder use.
- **15% Project Management**
Acts as a GIS and publications project lead completing complex tasks and coordinating supporting staff to achieve project goals. Participates in a lead capacity during the project planning and management related tasks including development of scope and schedule, task and subtask tracking, coordinating staff and internal resources, and ensuring project assignments are completed on time and within budget.
- **MARGINAL FUNCTIONS**
 - **5% GIS and Publication Staff Development and Support**
Provides mentoring and training to GIS and geologist staff as it relates to GIS and data research and management. Acts as a project technical lead for the above tasks and may conduct training and knowledge transfer to program geologists and Research Data Analyst staff.
 - **5% Field Investigation Support**
Supports field activities and may be deployed to support emergency response operations following a natural hazard emergency, including but not limited to, earthquakes, tsunamis, landslides, and wildfire. May support field investigation efforts by operating an Unmanned Airborne System (UAS), or act as a UAS spotter; complies with Department of Conservation UAS guidelines and may obtain Federal Aviation Administration license for UAS operation; downloads and processes UAS optical (imagery) and laser (lidar) point cloud data; develops photogrammetric models, performs model differencing. Develops training and guidance materials and supports training of program and Research Data Analyst staff.
 - **5% Administrative**
Performs administrative duties including, but not limited to adheres to Department policies, rules, and procedures; submits administrative requests including leave, overtime (if applicable), travel, and training in a timely and appropriate manner; accurately reports time in the Daily Log system; and submits timesheets by the due date.

B. **SUPERVISION RECEIVED**

The Research Data Specialist II reports directly to and receives the majority of assignments from the Research Data Supervisor II (GIS); however, direction and assignments may also come from Supervising Engineering Geologists and Senior Engineering Geologists.

C. **SUPERVISION EXERCISED**

None

D. **ADMINISTRATIVE RESPONSIBILITIES FOR SUPERVISORS AND MANAGERS**

None

E. **PERSONAL CONTACTS**

The Research Data Specialist II routinely interacts with other CGS and DOC staff, federal, state, and local agencies, and may include extensive public and professional contact. Contacts may be made via personal interaction, written correspondence, telephone, and/or email.

F. **ACTIONS AND CONSEQUENCES**

If these functions are not adequately performed, consequences may include, but are not limited to:

- CGS will not meet its legislative mandates to identify and classify mineral resources.
- Sub-standard job performance or errors in work may result in inaccurate spatial definition and classification of map layers and data products.
- Negative impacts to CGS's relationships with our state and federal partners and the public.
- Potential loss of contract funding significantly impacting program budget.

G. **WORKING CONDITIONS/PHYSICAL REQUIREMENTS**

- This position works primarily in an office environment.
- The equipment used by this position are computers, printers, and plotters.
- Sitting at a desk in the office during core office hours using a desktop computer, keyboard, mouse and monitor under artificial lighting for prolonged periods of time is necessary.
- Moving about the office and standing or sitting during in-person meetings is also necessary.
- Travel via private or public transportation (i.e., automobile, airplane, etc.) inside California may be required.
- Occasional operation of state-owned vehicle to drive long hours to meetings.
- Occasional working extended hours to meet project deadlines and to attend meetings, on-site reviews, or training inside California.
- Occasional walking on minimally irregular surfaces at field-sites may be required.
- Post-earthquake, fire, or landslide emergency response may result in relocating to local or regional incident command centers in remote locations on short notice for long durations.

H. **OTHER INFORMATION**

Desirable Qualifications

- Specialized knowledge of GIS analytical techniques.
- Exercises sound judgment in analyzing situations and making logical decisions.
- Ability to communicate effectively (verbally/written).
- Ability to work independently and in a team environment.
- Ability to organize and prioritize multiple assignments.

- Ability to promote a positive working environment and relationships with others.
- Demonstrate good attention to detail and communicate effectively working as a member of a team or alone.

Telework may be available for this position in accordance with the Department of Conservation's Telework Policy and Procedure

I have read and understand the duties listed above and I can perform these duties with or without reasonable accommodation (if you believe reasonable accommodation is necessary, discuss your concerns with your supervisor).

Employee Signature	Employee Printed Name	Date
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I have discussed the duties of this position with and have provided a copy of this duty statement to the employee named above.

Supervisor Signature	Supervisor Printed Name	Date
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